UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 10/669,709
Filing Date: September 25, 2003
Appellant(s): LEE ET AL.

S. Stuart Lee
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed October 1st 2009 appealing from the Office

action mailed October 21, 2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,787,204   FUKUDA   7-1998

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public
use or on sale in this country, more than one year prior to the date of application for patent in the United
States.

4.   Claims 1, 4, and 14-25 are rejected under 35 U.S.C. 102(b) as being anticipated

by Fukuda (US Patent no. 5,787,204).

Regarding claims 1, 4 and 16-19 Fukuda discloses an image data filtering apparatus

and method for reducing blocking effect and noise when a frame of the image data is

composed of data blocks of predetermined size (See Abstract and col. 3, lines 4-17),

the method comprising checking whether all coefficients of pixels in a predetermined

region of the data block is are equal to zero or not (See Fukuda col. 10, lines 54-61),

generating filtering information on whether the data block requires filtering depending on

whether all coefficients of pixels in the predetermined region of the data block are equal

to zero or not (See Fukuda col. 10, lines 65-67, col. 11, lines 1-4), and filtering the data

block passed through inverse quantization and inverse transform according to the

generated filtering information (See Fukuda col. 11, lines 25-37 and col. 12, lines 62-67

and col. 13, lines 1-8).

As per claims 20-22, Fukuda further provides a method wherein the predetermined

region includes a predetermined number of pixels and the predetermined region is

smaller than the data block (See Fukuda fig. 14a, item 222).

As per clams 14-15, Fukuda's predetermined region further includes a predetermined

number of pixels (See col. 10, lines 54-61).

As per claims 23-25, Fukuda does not limit the predetermined region to a square shape.

5.   Claims 2-3, 5-6, and 8-13 are allowed.

(10) Response to Argument

2.   Regarding claim 1, the appellant argues that Fukuda fails to disclose or suggest checking whether all coefficients of all pixels in a predetermined region of data block are equal to zero or not, in combination with other elements of the claim.

        The examiner respectfully disagrees. In col. 7, lines 51-67, Fukuda particularly notes that *"the quantization width becomes great as compression rate increases and there is a high probability that coefficients will be quantized to 0... For this reason, the decision of whether or not the transform coefficients are significant coefficients may be made depending on whether or not the value of each coefficient is zero instead of comparison of the absolute value of each coefficient with a threshold value as in the first embodiment. By doing so, non-zero coefficients are decided to be significant coefficients prior to the inverse quantization of transform coefficients of each block, and thus the coefficient decision circuit 14 of FIG. 1 composed of the absolute value circuit 31 and the threshold comparison circuit 32 can be replaced with a non-zero coefficient decision circuit 14A as shown in FIG. 5A."*
based on the above passage, it is clear that Fukuda at least determines whether the coefficients of the pixel are 0. The appellant should note that Fig. 14A, provides predetermined regions of 4X4, 3X3 and 1X1.

The appellant further argues that Fukuda fails to disclose or suggest any sort of predetermined region of the data block, in the manner recited in the claim.
The examiner respectfully disagrees. Fukuda provides an **8x8 block of interest** where coefficients of a 4x4 pixel region are non-zero coefficients or the significant coefficients

(See Fukuda col. 10, lines 54-67 and col. 11, lines 1-1). To the examiner, the 4x4 pixels

are in a predetermined region in a chosen block of interest. In addition, Fukuda

discloses a coefficient decision circuit 214 of fig. 13 which decides which portions of an

image (indicated by oblique hatching) contains significant non-zero coefficients. To the

examiner in the hatched regions are predetermined based upon the threshold set by

decision circuit 214.

The appellant should note that the decision of selecting a predetermined area is

disclosed in Fukuda col. 8, lines 6-29 where a portion of an image in which gradations

vary is of interest. The criteria is to look at either a white wall or the sky where

gradation is low. This is considered as selecting predetermined area based on

variation in color or motion. Selecting a region with these criteria is considered as a

predetermined condition.

The appellant further argues that claim 1 recited three elements therein, the elements

which are carried out in a particular order. Claim 1 recites checking, generating, and

then finally filtering. Therefore, the examiner cannot argue that Fukuda discloses the

three steps of claim in a different order.

The examiner respectfully disagrees. In fig. 3, Fukuda performs the checking with items

31 and 32; generates with decision circuit 33 and 34, and filters with items 35 and 35

(See Fukuda col. 6, lines 21-36). The same order claimed is shown in Fukuda.

The appellant further argues that claims 20 and 22 are patentable because Fukuda fails

to disclose a method wherein the predetermined region includes a predetermined

number of pixels and the predetermined region is smaller than the data block.

In response to the preceding argument, the examiner directs the appellant's attention to

fig. 14A where Fukuda provides predetermined number of pixels for a predetermined

region within a data block where the 1x1 portion is considered to be a first

predetermined region; the 3x3 portion is a second predetermined number of pixel for a

second predetermined region and 4x4 is a third predetermined region for a

predetermined number of pixels where the larger block is the 8x8 block show in fig. 14A

(See col. 12, lines 62-67 and col. 13, lines 1-9).

The appellant further argues that Fukuda fails to disclose a method wherein the

predetermined region is not square shaped as required for claims 21, 23-25.

In response, the examiner reminds the appellant that Fukuda does not limit is region to

only a square shape. In fact, Fig. 15A shows a hatched region that is not a square

shape like the square shapes 221, 222 and 223 of Fig. 14A.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the

Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/G. S. P./
/Gims S Philippe/
Primary Examiner, Art Unit 2621

December 22, 2009

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